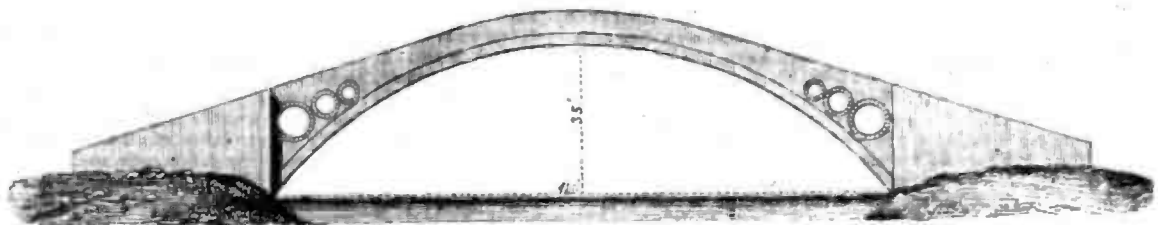
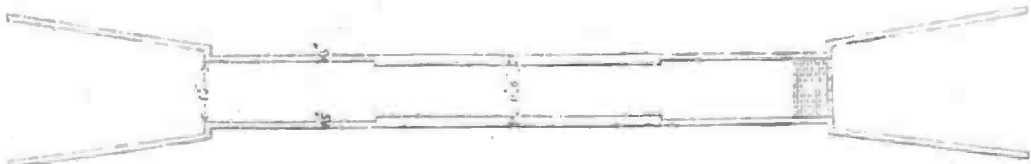


STONE BRIDGE OVER THE RIVER TAFF.



Elevation.



Plan.

bridge was proposed to be of one arch, the span or chord 140 feet, its versed sine 35 feet. The arch was finished, but the parapets not erected, when the pressure of the ponderous weight over the haunches caused the arch to spring up in the middle, and the keystones were forced out. This second failure was a severe blow, but the spirit of Edwards was not to be disconcerted, and he engaged in the work a third time, when, by means of three cylindrical openings through the work over the haunches, he reduced the weight upon the arch. He also added to the thickness of the parapet wall at the crown of the arch, and reduced it to its smallest possible limit over the haunches, as shewn on the plan, in order to throw additional weight on the former, and to lessen the weight on the latter.

The bridge was completed in the year 1750; previous to Edwards entering upon his task a third time, he, I believe, consulted the celebrated Smeaton, and, acting I have no doubt under his advice, adopted the expedients above stated. In the year 1798, the bridge underwent some extensive repairs at the hands of Edward David and Thomas Evans, as appears from a tablet inserted inside the parapet wall of the bridge at the crown of the arch. The arch, which is of 140 feet span, is a segment of a circle, its radius being 90 feet, and the proportions the various parts of this bridge bear to each other are as follows:—The rise or versed sine to span one-fourth, depth of the keystone to the span of the arch one forty-seventh. The latter is remarkable as being less in proportion than most bridges of modern construction. The masonry is of that description usually denominated rubble, and the stone of which it is composed is the level bedded and shelly sand and limestone of the country.

At the time this bridge was erected, it was considered a great triumph of genius and skill, and is even now thought to be an extraordinary piece of masonry to be accomplished by an uneducated and self-taught architect and masons; still I think if the works had to be performed in the present day, a much more convenient structure might be erected, viz. one of less altitude. The ascent to, and descent from the crown of the arch of this bridge is exceedingly steep and inconvenient, so much so, that if carriages with heavy weights pass over it, the descent cannot be accomplished with safety without the use of the drag (a square frame of timber with a long chain attached to it) which is kept there for that purpose: this is weighted and the chain fastened to the carriage at the summit, and as the carriage descends the one side, the drag, which acts as a counterbalance weight, ascends to the summit on the other. This operation has to be repeated for every carriage that passes over this bridge. The danger of passing this bridge is considerably augmented, in consequence of the roadway being pitched, which renders it difficult for horses to obtain a good foothold.

B. B.

Brecon and Merthyr Tydfil.

DESIGN FOR SMALL FARM BUILDINGS.

HAVING been requested on more than one occasion, to supply a plan for small and inexpensive farm-buildings, we avail ourselves of the following communication:—

SIR,—From solicitations of friends to the allotment system, I have been induced to forward you a design for a cottage with small farm buildings (containing in the area 500 square yards of land, including the fold yard) of simple construction, in brick-work, without any expenditure in external decoration.

If you should approve of it, you will confer a favour by giving it a place in your valuable journal.

The cost for the erection of the building will be about 200*l*. I am, Sir, &c.

Leamington

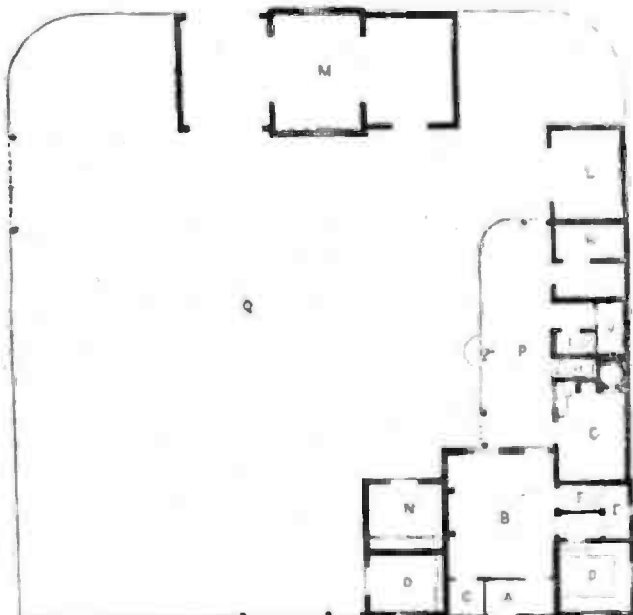
AN ARCHITECT.

REFERENCE TO THE PLAN.

| | | |
|--------------|---------------|-------------------|
| A Porch | G Bakehouse | M Barn, &c. |
| B Livingroom | H Hog Cistern | N Cow-house |
| C Closet | I Privy | O Stable |
| D Dairy | J Ash-place | P Court with Pump |
| E Pantry | K Pig-sty | Q Fold-yard |
| F Stair-case | L Open shed. | |

Three chambers and hay stable, over the cow-house and stable.

DESIGN FOR SMALL FARM BUILDINGS.



Plan.



Elevation of Cottage.



Elevation of Barn.